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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/606,763	06/29/2000	Hui Chen	1440.1043-001	7609
21005	7590	05/12/2004	EXAMINER	
HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133			KAM, CHIH MIN	
		ART UNIT	PAPER NUMBER	
		1653		

DATE MAILED: 05/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/606,763	CHEN ET AL.
	Examiner	Art Unit
	Chih-Min Kam	1653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 23 February 2004.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 12,13,17,19,38-42 and 91 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 17,19,38-42 and 91 is/are **allowed**. *free of art*
- 6) Claim(s) 12 and 13 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Status of the Claims

1. Claims 12, 13, 17, 19, 38-42 and 91 are pending.

Applicants' amendment filed February 23, 2004 is acknowledged, and applicants' response has been fully considered. Claims 12, 13, 17 and 19 have been cancelled. Thus, claims 12, 13, 17, 19, 38-42 and 91 are examined.

Rejection Withdrawn

Claim Rejections - 35 USC § 102

2. The previous rejection of claims 17, 19, 39 and 42 under 35 U.S.C. 112, second paragraph, is withdrawn in view of applicants' amendment to the claim, and applicant's response at pages 5-6 in the amendment filed February 23, 2004.

Claim Rejections - 35 USC § 102

3. The previous rejection of claims 12 and 13 under 35 U.S.C. 102(b) as being anticipated by Newton *et al.* (Genomics 24, 435-439 (1994)), is withdrawn in view of applicants' response at page 7 in the amendment filed February 23, 2004.

4. The previous rejection of claim 42 under 35 U.S.C. 102(a) as being anticipated by Heinegard *et al.* (WO 98/46253), is withdrawn in view of applicants' response at pages 7-9 in the amendment filed February 23, 2004.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 12 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 12 and 13 are indefinite because of the use of the term “in a conformation”. The term “in a conformation” renders the claim indefinite, it is not clear what conformation of human cartilage oligomeric matrix protein can be cleaved by trypsin to produce different bands (e.g., “50 kDa and 55 kDa” or “62 kDa or 67 kDa”), and under what condition the protein has this conformation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Neidhart *et al.* (British J. Rheumatology 36, 1151-1160 (1997)).

Neidhart *et al.* teach native human cartilage oligomeric matrix protein (hCOMP) was purified from articular cartilage by extraction with EDTA-containing buffer, affinity chromatography on wheat germ agglutinin coupled to CNBr-activated Sepharose, gel filtration on Sepharose CL4B, and affinity chromatography on heparin coupled to Sepharose CL6B (page 1152, left column); and the purified COMP was incubated with synovial fluids in the presence of 2 mM CaCl₂ and MgCl₂ (page 1153, left column). Since the purified hCOMP is mixing with 2 mM CaCl₂ in the buffer solution containing synovial fluids, the hCOMP would have calcium

replete conformation, which preserves native structure of the protein, thus, the hCOMP can be in a conformation cleaved by trypsin to produce the digested fragments of “50 kDa and 55 kDa” or “62 kDa or 67 kDa” (claims 12 and 13).

Conclusion

7. Claims 12 and 13 are rejected. It appears claims 17, 19, 38-42 and 91 are free of prior art.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Min Kam whose telephone number is (571) 272-0948. The examiner can normally be reached on 8.00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Low can be reached on (571) 272-0951. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 308-4227 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

Chih-Min Kam, Ph. D.
Patent Examiner

May 5, 2004

Christopher S.F. Low
CHRISTOPHER S. F. LOW
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600